

Amendments to the Specification

[0004] The purpose of this invention is achieved as follows. An elastic couple rotor turning gear is characterized in that an elastic support 5 is mounted on a frame 6 of a driven device, a casing 4 with a U-shaped cross section being connected to the elastic support for providing an elastic connection between the frame 6 of the driven device and the elastic couple rotor turning gear, a casing cover 3 being firmly fixed on the casing, a speed reducer 2 and an electric motor 1 being installed evenly or symmetrically positioned at an angle of 180°, an output shaft 16 of the speed reducer extending into the casing 4 under the casing cover 3, the output shaft 16 having a pinion gear 7 mounted thereon and meshed with a gear body 81 of a bull gear 8 positioned in the casing, the bull gear being connected to a shaft coupling 9 through parallel keys 10 via a key seat 83 or an upright post 84, and the shaft coupling 9 being fixed on a rotor 12 of the driven device.

[0020] Referring to FIG. 1, an elastic couple rotor turning gear is installed on a top frame 6 of a light hydroelectric generating set for adjusting a shafting center of the generating set. An elastic support 5 is connected to the top frame 6 of the driven device. FIGS. 2 and 3 show the elastic support 5 including the upper ring 51, the lower ring 52 and eight elastic ribs 53 between the upper and lower rings. The upper ring is a round ring with a diameter of 2.6 m and the lower ring is a round ring with a diameter of 3.8 m. The elastic ribs 53 are made of spring steel having a rectangular cross section. A ring-like casing 4 with a U-shape cross section is mounted on the elastic support. An elastic connection is established between the top frame 6 of the hydroelectric generating set and the elastic couple rotor turning gear. The casing 4 includes a casing cover 3 firmly fixed thereon. Two speed reducers 2 each with an electric motor 1 are installed on the casing cover and symmetrically positioned at an angle of 180° to form a couple. The speed reducer 2, casing cover 3 and the casing 4 are rigidly connected together. The electric motor has a power of 1.1 KW and a rotating speed of 1500

rpm. The output rotating speed of the speed reducer is 1 rpm. The output shaft 16 of the speed reducer extends into the casing 4 under the casing cover 3. A module of the pinion gear 7 connected to the output shaft 16 and a module of a bull gear 8 meshed with the pinion gear are both 10. The gear body 81 of the bull gear is received in the casing 4 and two key seats 83 are defined on an inner wall 82 of the bull gear. Two parallel keys 10 are respectively received in the key seats 83 for connecting the bull gear 8 and a shafting coupling 9 to transmit the moment of couple.

[0021] This elastic couple rotor turning gear is installed on the top frame 6 of a heavy hydroelectric generating set for adjusting shafting center of the generating set. An elastic support 5 is connected to the top frame 6 of the driven device. FIGS. 2 and 3 show the elastic support 5 including an upper ring 51, a lower ring 52 and twelve elastic ribs 53 between the upper and lower rings. The upper ring 51 is a round ring with a diameter of 2.8 m, and the lower ring 52 is a round ring with a diameter of 4.1 m. The elastic ribs 53 are made of spring steel with a trough shape cross section. A ring-like casing 4 with a U-shape cross section is mounted on the elastic support 5. An elastic connection is established between the top frame 6 of the hydroelectric generating set and the elastic couple rotor turning gear. The casing 4 has a casing cover 3 firmly fixed thereon. Two pairs of (four) speed reducers 2 each with an electric motor 1 are installed on the casing cover to form two couples, which synchronously and equally drive the rotor of hydroelectric generating set, wherein the two speed reducers and electric motors in each pair are symmetrically positioned at an angle of 180°. The electric motor has a power of 0.75 KW and a rotating speed of 1500 rpm. The output rotating speed of the speed reducer is 0.8 rpm. The output shaft 16 of the speed reducer extends into the casing 4 under the casing cover 3. The module of the pinion gear 7 connected to the output shaft 16 and the module of the bull gear 8 meshed with the pinion gear are 10. The gear body 81 of the bull gear is received in the casing 4 and two key seats 83 are defined on an inner wall 82 of the bull gear. Two parallel keys 10 are respectively received in the key seats 83 for connecting the bull gear 8 and a shafting coupling 9.